

Remarks

Claim 1-3, 5-17, 21-25, 27-32, and 38-41 are being advanced herein.

Claims 4, 18-20, 26, 33-37, 42-50 and 51 and 52 are now cancelled.

Applicant respectfully submits that the examiner's reliance on the Bodeep et al. (EP 0 695 092 A1) reference in the rejection of the applicant's claims herein is in error. Even though Bodeep shows the location of a receiver and converter at the feeder line end of a cable system, the reference also requires an additional fibre loop back to the cable headend. Bodeep requires such a loop because he knows that the low frequency band signals at the feeder line end are already contaminated with ingress noise and the down converted signals generated there thus could not be transmitted on the feeder line to any advantage.

Such signals could be transmitted on a feeder line end only with a system as disclosed by the applicant and which includes a high pass filter between each two-way communication device and, the feeder line. In the absence of such a filter at each tap connected to a feeder line of a cable system, the signals received at the feeder line end are already contaminated. That is why Bodeep requires a fibre optic loop.

Applicant is amending claim 1 to include the limitation of claim 4 and is canceling claim 4 herein to stress the importance of the high pass filters in applicant's system. Bodeep clearly does not even suggest the use and significance of such high pass filters. Instead, he goes to the extravagant expense of adding a fiber optic loop because he knows no other way of sending the (contaminated) low frequency signals to the headend.

In this context, application will address each of the examiner's rejections:

The examiner has rejected claims 1-3, 7, and 13-17 under 35 U.S.C 103(a) as being unpatentable over applicant's admitted prior art in view of Bodeep of record. Applicant respectfully traverses this rejection.

The examiner cites Bodeep as teaching a method of clearing ingress noise in the return signals by transmitting the return signals from end user units to a feeder line end where a receiver and converter are located. Applicant respectfully submits that the examiner's position is incorrect. In the absence of a high pass filter between each two-way device and the feeder line, Bodeep is incapable of clearing ingress noise. Even the use of a filter at the feeder line end as called for in Bodeep (Col. 6, line1) fails to eliminate ingress noise in the low frequency band signals along the feeder line.

The examiner also has rejected claims 46, 47 and 49 under 35 U.S.C 103(a) as being unpatentable over Bodeep (of record) in view of McAlear (US Pat. 6,598,232). Although, applicant traverses this rejection, he is canceling these claims in order to facilitate the prosecution of the application.

The examiner also has rejected claims 4 (now amended claim 1) and 8 under 35 U.S.C 103 (a) as being unpatentable over the admitted prior art in view of Bodeep and Baran (US Pat. 6,094,211). Applicant respectfully traverses this rejection.

The examiner cites Baran as showing high pass filters between feeder lines and set top boxes connected to it and concludes that it would be obvious to use such filters in view of Bodeep in anticipation of applicant's invention. Applicant urges that such a conclusion is not supported by the teaching in Baran. Baran (col 2, lines 53-59) teaches that the high pass filter are employed only for communications with the cable headend and that the filters are bypassed for upstream signals. The teaching in Baran is certainly not suggestive of utility in the system of Bodeep.

Accordingly, applicant urges that this rejection be withdrawn.

The examiner has rejected claims 6 under 35 U.S.C 103(a) as unpatentable over Bodeep, Baran and McAlear (all of record). Applicant traverses this rejection also.

Applicant urges that since the Bodeep reference fails to even suggest a system in which down converted, high frequency signals from a two-way device can be transmitted to the cable headend via a feeder line to which the device is connected and since the Baran reference teaches to bypass a filter at the set top box for return path signals, the additional citation of McAlear fails to remedy the failure of the cited references to even suggest the invention as claimed in claim 6.

The examiner also has rejected claims 48 (canceled herein) and 50 (canceled herein) under 35 U.S.C 103(a) as unpatentable over Bodeep and McAlear in view of Baran again citing Baran as teaching the use of high pass filters at the set top boxes. Applicant traverses this rejection also.

Applicant urges that Baran teaches to bypass the high pass filter except for transmissions to the cable headend. Thus, there is no suggestion that such filters would server any purpose in the Bodeep system.

Thus, applicant urges that this rejection be withdrawn.

The examiner also has rejected claims 9-12, 21-25, and 28-32 under 35 U.S.C 103(a) as unpatentable in view of Bodeep and Freyman et al (US Pat. 5,966,410). Applicant traverses this rejection also.

Applicant's independent claims 9 and 21 included a limitation for retransmitting (down converted) signal along the corresponding feeder lines. As applicant has urged above, Bodeep discloses a system, which fails to operate as claimed. Although Freyman shows the connections from a line to each set top box being equipped for eliminating ingress noise in the signals from the set top box to the headend, the equipment is expensive and is duplicated at each set top box. Further, the signals are not transmitted from the set top box in a high frequency band and not received at the feeder line end as

disclosed and claimed by the applicant. Clearly, the Freyman reference does not suggest the up conversion of signals from a two-way device for transmission to a feeder line end where the signals are down converted and transmitted along the corresponding feeder line as claimed.

Thus, applicant urges that claims 9 and 21 clearly distinguish over cited references and claims 10-12 and 22-25 and 28-52 dependent there from also distinguish.

The examiner also has rejected claims 38-41 under 35 U.S.C 103(a) over Bodeep and Freyman in view of Baran. Applicant traverses this rejection also.

Bodeep requires an isolated return loop because ingress noise is present on the feeder line and any low frequency signals introduced by Bodeep at a feeder line end would be contaminated with ingress noise if introduced to and transmitted along the feeder line. Freyman teaches the use of expensive equipment at each set top box to eliminate ingress noise in signals directed to the cable headend and Baran teaches to bypass filters at the set top boxes. The teachings of the references are contradictory, incompatible, and expensive and fail to even suggest applicant's invention as claimed.

Accordingly, applicant respectfully submits that the rejection of claims 38-41 is unsupported and urges that the rejection be withdrawn.

The examiner has rejected claims 27 under 35 U.S.C 103(a) in view of Bodeep and Freyman (as applied to claim 21 above) in further view of McAlear. Applicant respectfully submits that claim 27 depends from claim 21 which clearly distinguishes over the cited art and that he is entitled to claims of the scope encompassed by claim 27 accordingly.

The examiner also has rejected claims 43 and 44 in view of Bodeep as well as claim 45. Applicant is canceling these claims herein to expedite the prosecution of the application.

The examiner also has rejected claim 42 under 35 U.S.C 102 (b) as anticipated by Bodeep. Applicant is canceling claim 42 herein also.

In summary, the Bodeep reference fails to even suggest a system for transmitting return signals free of ingress noise on a feeder line as disclosed and claimed by the applicant. The Baran, Freyman and McAlear references, further, add no teaching at all to alter the Bodeep system to anticipate applicant's system as disclosed and claimed.

It is to be understood that applicants use of a down converter and transmitter at a feeder line end is a community device shared by all two-way devices connected to the feeder line. A two-way device has access to the system by including an up converter and a high pass filter --- simple and inexpensive. The cited art (Baran) shows a filter at a set top box and teaches to avoid its use in operation as required by Bodeep. Freyman teaches

expensive and complicated equipment at each set top box for use in (direct) transmission to the cable headend.

In view of the above arguments, applicant respectfully urges reconsideration and allowance of the claims, allowance of the application and passage thereof to issue. Alternatively, applicant urges that the amendment be entered for simplifying the issues for appeal.



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